

REMARKS

Applicants respectfully requests reconsideration. Claims 1-129 were previously pending in this application. By this amendment, Applicants are canceling claims 1-111 and 119 without prejudice or disclaimer. Claims 112-113, 117-120, and 122-127 have been amended. New claims 130-143 have been added. As a result, claims 112-118, and 120-143 are pending for examination, with claims 112, 133 and 140 being independent claims. No new matter has been added.

Objections to the Specification

The Examiner objected to the Abstract because the Abstract is longer than the maximum length. A substitute Abstract is attached.

Rejections under 35 U.S.C. §112

The Examiner rejected claims 112-119 under 35 U.S.C. §112, because of the phrase "time/frequency." This phrase no longer appears in the claims.

Accordingly, withdrawal of the rejection of claims 112-118 under 35 U.S.C. §112 is respectfully requested.

Rejections Under 35 U.S.C. §103

The Examiner rejected claims 112, 115-118 and 120-129 under 35 U.S.C. §103(a) as being unpatentable over Koch et al., in view of U.S. Patent No. 6,101,213 (Van Allen) and further in view of RFC 1750.

Applicants respectfully disagree with the rejection under the prior art. First, the references are not properly combinable because they are from non-analogous arts. Though Koch et al. relates to copyright labeling, the Van Allen reference relates to spread spectrum communications and RFC 1750 relates to cryptographic security. One seeking to address problems associated with the distribution of title data would not look to these disparate art fields for solutions.

Second, even if combinable, the references do not teach or suggest the claims as a whole. The Van Allen reference describes a spread spectrum communication system. Even if the reference shows different frequency modulation relationships used at different times, these different relationships would likely be used for transmitting different information at different times. The reference provides no teaching or suggestion applicable to watermarking title data. In particular, it does not describe or suggest “randomly selecting a plurality of number to frequency modulation relationships; and frequency modulating at least a portion of the title data at each of the plurality of placement locations with a modulation derived by applying one of the plurality of number to frequency modulation relationships, to the identification data.”

The other references do not supply the teachings missing from the Van Allen reference that would motivate one of skill in the art to develop a method of watermarking title data as recited in claim 112. While RFC 1750 describes in general randomness, it contains no teaching that would motivate the specific properties that are described to be random in the claim. It cannot therefore teach or motivate the modification of Koch et al., needed to produce the method of claim 112.

In the context of the watermarking system described in the application, watermarking of the title data creates codes that are intended to be imperceptible to a legitimate user of the title data. However, the source of a copy of the title data may be identified by extracting the identification data from the watermarked title. The identification data is included at a plurality of placement locations so that even if only a portion of the title data is available for analysis, the identification data may still be recovered. By using different frequency modulation relationships to modulate the title data with the identification data, an unauthorized user (one who does not have the watermarking key) will have difficulty detecting the watermark. If an unauthorized user cannot detect the watermark, then the unauthorized user cannot remove the watermark from the title data.

Such a method involves using encoding and random selection in different ways to achieve different results than in a cryptographic security system or in a spread spectrum communication system. Accordingly, the method of watermarking recited in claim 112 provides important features and advantages which are not shown or suggested in the references.

Similarly, newly added claim 133 recites watermarked title data that is produced by a desirable method of watermarking that is not shown or suggested in the references. Thus, claim 133 is not anticipated or obvious based on the references.

Claim 140 also recites a method of watermarking. The method recited in claim 140, includes “randomly selecting one of a plurality of encoding relationships.” This encoding relationship provides “position information identifying a plurality of positions and frequency modulation information associated with each position identified by the position information.” The position information is used to select placement locations. The method then includes “modulating the title data at the placement location with the identification data based on the frequency modulation information associated with the position.” A method including these acts is not shown or suggested by the references.

The dependant claims should be found patentable for the reasons provided in connection with claim 112. In addition, each of the dependent claims provides a further basis for patentably distinguishing the references.

Accordingly, withdrawal of this rejection is respectfully requested.

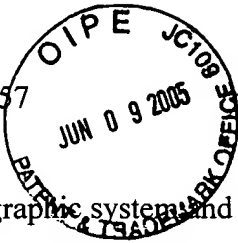
Rejections Under 35 U.S.C. §103

The Examiner rejected claims 113-114 under 35 U.S.C. §103(a) as being unpatentable over Koch et al., in view of U.S. Patent 6,101,213 (Van Allen) and further in view of RFC 1750 and U.S. Patent 5,748,734 (Mizikovsky).

As explained above, Koch et al., Van Allen and RFC 1750 are from disparate fields and are not properly combinable. Mizikovsky relates to a cryptographic system and therefore is not properly combinable with the other references to make a rejection of claims relating to watermarking title data.

Further, the combination of references Koch et al., Van Allen and RFC 1750 does not teach or suggest the combination of all of the elements of claim 112, from which claims 113 and 114 depend. The Mizikovsky reference does not provide a teaching or suggestion of the missing elements. Furthermore, Mizikovsky et al., does not provide a teaching or suggestion that would motivate the use of a watermarking key as claimed in claims 113 and 114. Mizikovsky et al is

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directed to a cryptographic system and therefore does not teach or suggest the specific combination of elements that makes up the watermarking key in the present application.

Accordingly, withdrawal of this rejection is respectfully requested.

CONCLUSION

A Notice of Allowance is respectfully requested. The Examiner is requested to call the undersigned at the telephone number listed below if this communication does not place the case in condition for allowance.

If this response is not considered timely filed and if a request for an extension of time is otherwise absent, Applicants hereby requests any necessary extension of time. If there is a fee occasioned by this response, including an extension fee, that is not covered by an enclosed check, please charge any deficiency to Deposit Account No. 23/2825.

Respectfully submitted,
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